

the extremities of branchlets to lick the latex from every mature leaf. A gentle gnawing and/or licking at the vein furcating point of the leaf initiates the flow of latex. Once the latex begins to flow, the squirrels lick it and go to another leaf and this action is then repeated. A scar of dried latex could be seen on the underside of every licked leaf. The fresh scars are whitish, while old dried scars are dirty white or black. Presence of a latex-scar on the underside of a leaf is indicative of it having been tapped by a squirrel. This behaviour of squirrels is commonly seen in various parts of the country (Table 1).

The latex probably provides nutrition to squirrels; it seems that the squirrels procure water, minerals and organic nutrition from the latex.

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2. STRANDING OF A SPERM WHALE *PHYSETER MACROCEPHALUS* (LINNAEUS 1758) ON THE CHENNAI COAST¹

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Whales are the most dominant marine mammals of Order Cetacea. They are mostly denizens of temperate and polar oceanic waters, but they do migrate to tropical waters for breeding and/or escaping extreme climatic conditions during certain seasons (Corbett and Hill 1992). However, not all whales that are denizens of temperate and polar oceanic waters migrate to tropical waters, e.g. the Bowhead Whale *Balaena mysticetus*, Bryde's Whale *Balaenoptera edeni* are believed to live primarily in tropical and subtropical waters all the year round. There is no evidence of their migration away from these regions. The body of the whale is protected by a thick layer of oil rich blubber beneath the skin, which acts as a thermal insulator, a store of energy for long migrations, and plays an important role for maintaining its hydrostatic buoyancy. Whales are usually found in the upper few metres of the sea, but are capable of extensive deep dives. Depending

on the presence of teeth or baleen plates, whales are classified as toothed (Odontoceti) or baleen whales (Mysticeti). Toothed whales mostly feed on fishes and cephalopods, while baleen whales mostly feed on plankton such as euphausiids, by a filter-feeding mechanism, and sometimes pelagic fishes and cephalopods (Bensam and Menon 1996).

Stranding of a Sperm Whale on the Chennai Coast

A Sperm Whale *Physeter macrocephalus* Linn. was stranded on the Chennai coast, behind Napier's Bridge (13°06'N, 80°18'E), in the early hours of January 21, 2002. It was a male, measuring about 995 cm long, and weighing about 3 tons. The animal had injuries throughout the caudal region, which could have been caused by the propeller of fishing boats. In general, however, the animal was in good condition with all specific characteristic features.

Morphological features of *P. macrocephalus* Linnaeus 1758

Enormous truncate head, almost one-third the size of the body, containing a large organ filled with spermaceti.

Dorsal fin: Low, small, pointed and ridge-like, followed by a series of humps up to the tail.

Pectoral flippers: Broad, paddle-like, small.

Tail fluke: Broad and notched in the middle; dark below.

Teeth: No functional teeth on the upper jaw; 18-27 large teeth on left side of the lower jaw.

Blowhole: An asymmetrical, S-Shaped blowhole on the left side of the upper anterior extremity of the forehead.

Sexual dimorphism: Males nearly one and a half times larger than females; end of snout squarish in males and rounded in females (Agarwal and Alfred 1999; Muthiah *et al.* 1988; James *et al.* 1993).

REASONS FOR BEING STRANDED

The plausible cause for being stranded is the inability of the animals to determine and avoid shallow areas, as a result of parasitic infestations of the organs connected with sonar wave perception. Hence, such whales get stranded on gently sloping beaches, murky waters and tidal sites.

a. Interference with breathing: Despite many impressive adaptations of whales to an aquatic environment, they still breathe in air. Apart from those killed by man, many die due to drowning. Illness, weakness and old age could lead to death, but the gravest danger faced by all cetaceans is their inability to breathe. There are numerous reports of whales of all sizes coming to each other's aid, assisting ill or injured group members to the surface where they can continue to respire. This phenomenon often becomes a reason for mass stranding in shallow waters (Bensam and Menon 1996).

Analyses of stranded whales on the British coast reveal that toothed and baleen whales, deep and shallow water species, young and old, male and female, solitary individuals and social groups, apparently healthy but injured whales

could be stranded (Watson 1988).

In most cases, the animals are still alive when they first become stranded, usually on gently shelving beaches. Post-mortem often reveals air injury, infection or debility, which probably caused discomfort, making it difficult for the whale to behave normally in deep water. Under these circumstances, faced with the risk of drowning, it would be natural for the cetacean to seek a place where it could continue to breathe, while marshalling its strength to deal with other problems (Watson 1988).

b. Navigational errors: Pollution and other extreme climatic conditions of oceanic waters may interfere with the communication system of the whales, thereby reducing their ability to perceive signals, resulting in navigational errors. Many whales get trapped in icebergs while migrating to their feeding/breeding grounds (Berzin 1972).

c. Pathogens: Like all animals, cetaceans are hosts to a number of internal parasites, such as tapeworms, hookworms, round worms and flukes. When the ancestors of the modern whale left land to take up a new life in the sea, they simply carried these lodgers with them, as their internal environments were largely unchanged. Accumulation of viruses and bacteria in the body of the whales has been proved to be an important reason for the mass stranding of pilot whales (Watson 1988).

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